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Conference Abstract

Open Source Workshop to Mobilize Marine Biodiversity Data

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Abstract

The 2022 Marine Biological Data Mobilization Workshop was a collaborative effort between Ocean Biodiversity Information System-USA (OBIS-USA), Marine Biodiversity Observation Network, Hakai Institute, Integrated Ocean Observing System, and Ocean Tracking Network, and hosted to promote open data and software in marine biodiversity assessment. The workshop focused on the application of the Darwin Core data standard (Wieczorek et al. 2012) to extant data and the subsequent publication of data to the open access data infrastructures provided by OBIS and the Global Biodiversity Information Facility. The curriculum for this workshop was modeled using The Carpentries evidence-based best practices of teaching. The materials and website are openly available via GitHub and are free for re-use or adaptation under an MIT license. Some unconventional features of the workshop included:

1. Much of the workshop time was allocated to breakout rooms and individual work.
2. The use of concurrent, topical breakout rooms led by instructors in combination with “floating” specialist volunteers.
3. A 100% open and free virtual workshop leveraging synchronous and asynchronous communications technologies including Slack, Zoom, and GitHub.

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4. All instructional steps were offered in both Python and R (dual-programming language materials).

The workshop was attended internationally by 63 participants, with 48 attendees joining the associated Slack group. These new members have been invited to attend a monthly working group organized to address roadblocks to standardization and promote the mobilization of marine biological data. A pre- versus post-survey analysis showed substantial improvement to self-reported data science skill levels, a multitude of positive feedback was reported, and the workshop scored a perfect 100% standard Net Promoter Score (Reichheld 2003) with 16 “promoters”, 0 “detractors”, and a total of 25 respondents.

Keywords

instruction, Darwin Core, United Nations Decade of Ocean Science for Sustainable Development, tutorials, training

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Presented at

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